

# **Bay Area Air Quality Management District**

939 Ellis Street  
San Francisco, CA 94109  
(415) 771-6000

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**Final**

## **MAJOR FACILITY REVIEW PERMIT**

**Issued To:**

**General Chemical Corporation  
Facility #A0023**

**Facility Address:**

525 Castro Street  
Richmond CA 94801

**Mailing Address:**

P O Box 1712  
Richmond CA 94802

**Responsible Official**

James N. Tanis, Vice President  
(510) 232-7193

**Facility Contact**

Thomas Brafford, Plant Manager  
(510) 232-7193

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**Type of Facility:** Sulfuric Acid Production

**Primary SIC:** 2819

**Product:** Sulfuric Acid

**ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

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Ellen Garvey, Air Pollution Control Officer

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Date

Facility Name: General Chemical Corporation  
Final Permit for Facility #: A0023  
Expiration Date: 7-01-02  
ID: JJE

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## I. STANDARD CONDITIONS

### A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions

(as amended by the District Board on 11/3/93);

SIP Regulation 1 - General Provisions and Definitions

(as approved by EPA through 11/10/82);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements

(as amended by the District Board on 6/7/95);

SIP Regulation 2, Rule 1 - Permits, General Requirements

(as approved by EPA through 6/23/95);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review

(as amended by the District Board on 6/7/95);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration

(as approved by EPA through 10/19/84); and

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking

(as amended by the District Board on 6/15/94).

### B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit expires on July 1, 2002. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than January 1, 2002, and no earlier than July 1, 2001. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after June 30, 2002.** (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)
3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-

## **I. Standard Conditions (continued)**

409.7; MOP Volume II, Part 3, §4.11)

6. This permit does not convey any property rights of any sort, nor any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)

### **C. Requirement to Pay Fees**

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

### **D. Inspection and Entry**

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

### **E. Records**

Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

### **F. Monitoring Reports**

All required monitoring reports must be submitted to the District at least once every six months. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported to the

## **I. Standard Conditions (continued)**

District's Compliance and Enforcement Division within 10 days of the discovery of the incident. Within 30 days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. (Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

### **G. Compliance Certification**

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division, and a copy of the certification should be sent to the Environmental Protection Agency at the following address:

Director of the Air Division  
USEPA, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105  
Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

### **H. Emergency Provisions**

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit caused by conditions beyond the permit holder's reasonable control by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. Any variance granted by the Hearing Board from any term or condition of this permit which lasts longer than 90 days will be subject to EPA approval. (MOP Volume II, Part 3, §4.8)
3. Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement unless the Major Facility Review Permit has been modified pursuant to Regulation 2, Rule 6. (MOP Volume II, Part 3, §4.8)

### **I. Severability**

## **I. Standard Conditions (continued)**

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

### **J. Accidental Release**

This facility is subject to 40 CFR Part 68, Chemical Accident Prevention Provisions. The permit holder shall submit a risk management plan (RMP) by the date specified in §68.10. The permit holder shall also certify compliance with the requirements of Part 68 as part of the annual compliance certification, as required by Regulation 2, Rule 6. (40 CFR Part 68, Regulation 2, Rule 6)

## II. EQUIPMENT LIST

### A. Permitted Source List

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2-1-302.

**Table II-A**

S-#	Description	Make or Type	Model	Capacity
S-1	Sulfuric Acid Manufacturing Plant	Unknown	none	219,000 ton/yr
S-2	Sulfuric Acid Storage Tank #10	Unknown	none	440 tons
S-3	Alkylation Acid Storage Tank #12 (0.5 psia max. true vapor pressure)	Unknown	none	63,000 gallons
S-5	Sulfuric Acid Storage Tank #9	Unknown	none	210 tons
S-6	Sulfur Storage Tank	Unknown	none	250 tons
S-7	Sulfur Melting Pit	Cement-lined underground pit	none	20 tons
S-8	New Sulfur Melting Pit	steel-lined underground pit	none	80 tons
S-9	Process Air Heater (refinery make gas, natural gas)	Direct-fired	none	15 MM BTU/hr
S-10	Alkylation Acid Storage Tank #11 (0.5 psia max. true vapor pressure)	Unknown	none	126,000 gallons
S-11	Sulfuric Acid Storage Tank #5	Unknown	none	105 tons
S-13	Alkylation Acid Storage Tank #16 (0.5 psia max. true vapor pressure)	unknown	none	263,000 gallons
S-14	Gasoline Dispensing Facility (GDF #6363)	unknown	none	unknown
S-15	Startup Air Heater (natural gas)	indirect-fired	none	16.6 MM BTU/hr
S-16	Alkylation Acid Storage Tank #13	unknown	none	66,000 gallons
S-17	Railcar Loading/Unloading Station (Sulfuric/Alkylation Acid)	Durco	Mark III	200 gpm

## I. Equipment List (continued)

### A. Permitted Sources (continued)

**Table II-A (continued)**

S-#	Description	Make or Type	Model	Capacity
S-18	Truck Unloading Station (Alkylation Acid)	Durco	Mark III	200 gpm
S-20	West Truck Loading/Unloading Station (Sulfuric Acid)	Durco	Mark III	200 gpm
S-22	Sulfur Unloading Station	unknown (gravity feed)	none	17 ton/hr
S-24	Electronic Grade Sulfuric Acid Manufacturing Process (integrated with S-1)	unknown	none	15,000 ton/yr
S-28	Sulfuric Acid Storage Tank #1	unknown	unknown	72,000 gallons
S-29	Sulfuric Acid Storage Tank #2	unknown	unknown	72,000 gallons
S-30	Sulfuric Acid Storage Tank #4	unknown	unknown	15,546 gallons
S-31	Sulfuric Acid Storage Tank #7	unknown	unknown	15,546 gallons
S-32	Alkylation Acid / Sulfuric Acid Storage Tank #14	unknown	unknown	210,000 gallons



**I. Equipment List (continued)**

**B. Abatement Device List**

**Table II-B**

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Required Efficiency
A-1	Sulfur Dioxide Abatement System ("Dual Absorption" process)	A-2	S-1, S-24: 9-1-309	none	limit SO <sub>2</sub> emissions to no more than 300 ppm @ 12% O <sub>2</sub>
			S-24: Condition #13507, part 2		none
A-2	Mist Eliminator	S-1, S-24	S-1, S-24: 6-320, 12-6-301	none	6-320: limit SO <sub>3</sub> and H <sub>2</sub> SO <sub>4</sub> emissions to less than 0.04 grain/dscf 12-6-301: limit acid mist emissions to no more than 0.15 gram per kilogram (0.3 lb/ton) of acid produced
			S-24: Condition #13507, part 2		none

### III. GENERAL APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit.

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):  
The date(s) of adoption or most recent amendment of the regulation by the District Board
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:  
The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

Where an applicable requirement is a SIP requirement, the full language of the SIP requirement is included in Appendix A of this permit.

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (11/3/93)	N
SIP Regulation 1	General Provisions and Definitions (11/10/82)	Y
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning (11/2/94)	N
SIP Regulation 5	Open Burning (5/3/84)	Y
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (6/16/83)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	N

### III. General Applicable Requirements (continued)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
SIP Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (11/16/83)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (12/20/95)	N
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (5/3/84)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (12/4/91)	Y
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y

#### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):  
The date(s) of adoption or most recent amendment of the regulation by the District Board
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:  
The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. Additionally, where an applicable requirement is a SIP requirement, the full language of the SIP requirement is included in Appendix A of this permit. All other text may be found in the regulations themselves.

**Table IV-A**  
**S-1 Sulfuric Acid Manufacturing Process**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (3/3/93)</b>		
1-520	Continuous Emission Monitoring	Y	
1-520.3	SO <sub>2</sub> from Sulfuric Acid Plants	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Requirements	Y	
1-522.1	Plans and Specifications	Y	
1-522.2	Installation Scheduling	Y	
1-522.3	Performance Testing	Y	
1-522.4	Periods of Inoperation Greater Than 24 Hours	Y	
1-522.5	Calibration	Y	
1-522.6	Accuracy	Y	
1-522.7	Excesses	Y	
1-522.8	Monthly Reports	Y	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-A (continued)**  
**S-1 Sulfuric Acid Manufacturing Process**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
1-522.9	Records	Y	
1-602	Area and Continuous Emission Monitoring Requirements	N	
<b>SIP Regulation 1</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE General Provisions and Definitions (11/10/82)</b>		
1-541	Emission Excesses	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
1-604	Opacity Measurements	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	N	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-311	General Operations	Y	
6-320	Sulfuric Acid Manufacturing Plants	Y	
6-401	Appearance of Emissions	Y	
<b>SIP Regulation 6</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE Particulate Matter and Visible Emissions (6/16/83)</b>		
6-301	Ringelmann Number 1 Limitation (9/5/79)	Y <sup>1</sup>	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gases - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	N	
9-1-309	Emission Limitations for Sulfuric Acid Plants	N	
9-1-502	Emission Monitoring Requirements	N	
9-1-601	Sampling and Analysis of Gas Streams	Y	
9-1-603	Averaging Times	Y	
9-1-604	Ground Level Monitoring	Y	
9-1-605	Emission Monitoring	Y	

<sup>1</sup> This section of the SIP rule has been removed from or revised in the current BAAQMD rule. Nevertheless, the source must comply with this SIP requirement until US EPA has reviewed and approved the District's revision of the regulation.

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-A (continued)**  
**S-1 Sulfuric Acid Manufacturing Process**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>SIP Regulation 9, Rule 1</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE</b> <b>Inorganic Gases - Sulfur Dioxide (5/3/84)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-308.2	Emission Limitations for Sulfuric Acid Plants	Y	
9-1-502	Emission Monitoring Requirements	Y	
<b>BAAQMD Regulation 12, Rule 6</b>	Acid Mist from Sulfuric Acid Plants (12/6/78)	N	
12-6-301	Acid Mist	N	
12-6-501	Production Rate and Hours of Operation	N	
12-6-601	Testing Procedures	N	
<b>BAAQMD Cond #14980</b>			
Part 1	Acid Mist/SO3 Annual Source Test	Y	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-B**  
**S-9 Process Air Heater**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gases - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	N	
9-1-302	General Emission Limitations	Y	
<b>SIP Regulation 9, Rule 1</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE Inorganic Gaseous Pollutants - Sulfur Dioxide (5/3/84)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y <sup>1</sup>	
<b>BAAQMD Regulation 9, Rule 2</b>	<b>Inorganic Gaseous Pollutants - Hydrogen Sulfide (3/17/82)</b>		
9-2-301	Limitations on Hydrogen Sulfide	N	
9-2-501	Area Monitoring Requirements	N	
<b>BAAQMD Regulation 9, Rule 7</b>	<b>Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/15/93)</b>		
9-7-301	Emission Limits - Gaseous Fuel	N	
9-7-301.1	Performance Standard, NO <sub>x</sub>	N	
9-7-301.2	Performance Standard, CO	N	
9-7-403	Initial Compliance Demonstration	N	
9-7-502	Modified Maximum Heat Input	N	
9-7-503	Records	N	
9-7-503.1	§304.2 Records	N	
9-7-503.2	Records, Curtailment	N	
9-7-503.3	§306.3 Records	N	
9-7-503.4	§403 Records and Record Retention	N	

<sup>1</sup> This section of the SIP rule has been removed from or revised in the current BAAQMD rule. Nevertheless, the source must comply with this SIP requirement until US EPA has reviewed and approved the District's revision of the regulation.

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-B (continued)**  
**S-9 Process Air Heater**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-7-601	Determination of NOx	N	
9-7-602	Determination of CO and Stack-Gas O <sub>2</sub>	N	
9-7-603	Compliance Determination	N	
9-7-605	Determination of Higher Heating Value	N	
<b>BAAQMD Condition #7934</b>			
part 1	Allowed Fuels Specified (basis: cumulative increase)	Y	
part 2	Annual Fuel Use Limit (basis: NOx offsets, cumulative increase)	Y	
part 3	Record Retention Requirement (basis: cumulative increase)	Y	

<sup>1</sup> This section of the SIP rule has been removed from or revised in the current BAAQMD rule. Nevertheless, the source must comply with this SIP requirement until US EPA has reviewed and approved the District's revision of the regulation.

**Table IV-C**  
**S-13 Alkylation Acid Storage Tank #16**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Condition #2051</b>			
part 1	Abatement Requirement (basis: cumulative increase)	Y	



#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-D**  
**S-14 Gasoline Dispensing Facility**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 8, Rule 7</b>	<b>Organic Compounds - Gasoline Dispensing Facilities (6/1/94)</b>		
8-7-112	Phase II Exemptions	Y	
8-7-112.7	Exemption - Older Facilities with Low Annual Throughput	Y	
8-7-113	Tank Gauging and Inspection Exemption	Y	
8-7-114	Stationary Tank Testing Exemption	Y	
8-7-301	Phase I Requirements	Y	
8-7-301.1	Requirement for CARB Phase I System	Y	
8-7-301.2	Installation of Phase I Equipment per CARB Requirements	Y	
8-7-301.3	Submerged Fill Pipes	Y	
8-7-301.4	P-V Valves on All Open Vent Pipes	Y	
8-7-301.5	Maintenance of Phase I Equipment per Manufacturers Guidelines	Y	
8-7-301.6	Leak-Free, Vapor-Tight	Y	
8-7-301.7	Poppetted Drybreaks	Y	
8-7-303	Topping Off	Y	
8-7-304	Certification Requirements	Y	
8-7-308	Operating Practices	Y	
8-7-312	Removal of Gasoline	Y	
8-7-401	Equipment Installation and Modification	Y	
8-7-404	Certification of New Installations	Y	
8-7-501	Burden of Proof	Y	
8-7-502	Right of Access	Y	
<b>BAAQMD Condition #708, part 1</b>	Annual Fuel Throughput Limit (basis: BAAQMD Regulation 8-7-112.7)	Y	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-E**  
**S-15 Startup Air Heater**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gases - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	N	
9-1-302	General Emission Limitations	Y	
<b>SIP Regulation 9, Rule 1</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE</b> <b>Inorganic Gaseous Pollutants - Sulfur Dioxide (5/3/84)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y <sup>1</sup>	
<b>BAAQMD Regulation 9, Rule 7</b>	<b>Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/15/93)</b>		
9-7-301	Emission Limits - Gaseous Fuel	N	
9-7-301.1	Performance Standard, NO <sub>x</sub>	N	
9-7-301.2	Performance Standard, CO	N	
9-7-403	Initial Compliance Demonstration	N	
9-7-502	Modified Maximum Heat Input	N	
9-7-503	Records	N	
9-7-503.1	§304.2 Records	N	
9-7-503.2	Records, Curtailment	N	
9-7-503.3	§306.3 Records	N	
9-7-503.4	§403 Records and Record Retention	N	
9-7-601	Determination of NO <sub>x</sub>	N	
9-7-602	Determination of CO and Stack-Gas O <sub>2</sub>	N	
9-7-603	Compliance Determination	N	
9-7-605	Determination of Higher Heating Value	N	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-E (continued)**  
**S-15 Startup Air Heater**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Condition #7606</b>			
part 1	Allowed Fuels Specified; Annual Fuel Use Limit (basis: NOx offsets, cumulative increase)	Y	
part 2	Exhaust NOx Concentration Limit (basis: NOx offsets, NOx BACT, cumulative increase)	Y	
part 3	Exhaust CO Concentration Limit (basis: CO BACT, cumulative increase)	Y	
part 4	Record Retention Requirement (basis: NOx offsets, cumulative increase)	Y	

**Table IV-F**  
**S-16 Alkylolation Acid Storage Tank #13**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Condition #13215</b>			
part 1	Annual Throughput Limit (basis: cumulative increase)	Y	
part 2	Abatement Requirement (basis: cumulative increase)	Y	
part 3	Abatement Requirement (basis: cumulative increase)	Y	
part 4	Record Retention Requirement (basis: cumulative increase)	Y	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-G**  
**S-17 Railcar Loading/Unloading Station (Sulfuric/Alkylation Acid)**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Condition #12051</b>			
part 1	Allowable Materials Specified (basis: cumulative increase)	Y	
part 2	Abatement Requirement (basis: cumulative increase)	Y	
part 3	Record Retention Requirement (basis: cumulative increase)	Y	

**Table IV-H**  
**S-18 Truck Unloading Station (Alkylation Acid)**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Condition #12052</b>			
part 1	Allowable Materials Specified (basis: cumulative increase)	Y	
part 2	Abatement Requirement (basis: cumulative increase)	Y	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-I**  
**S-24 Electronic Grade Sulfuric Acid Manufacturing Process**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>Regulation 1</b>	<b>General Provisions and Definitions</b>		
1-520	Continuous Emission Monitoring	Y	
1-520.3	SO <sub>2</sub> from Sulfuric Acid Plants	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Requirements	Y	
1-522.1	Plans and Specifications	Y	
1-522.2	Installation Scheduling	Y	
1-522.3	Performance Testing	Y	
1-522.4	Periods of Inoperation Greater Than 24 Hours	Y	
1-522.5	Calibration	Y	
1-522.6	Accuracy	Y	
1-522.7	Excesses	Y	
1-522.8	Monthly Reports	Y	
1-522.9	Records	Y	
1-602	Area and Continuous Emission Monitoring Requirements	N	
<b>SIP Regulation 1</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE</b>		
	<b>General Provisions and Definitions (11/10/82)</b>		
1-541	Emission Excesses	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
SIP 1-604	Opacity Measurements	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	N	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-311	General Operations	Y	
6-320	Sulfuric Acid Manufacturing Plants	Y	
6-401	Appearance of Emissions	Y	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-I (continued)**  
**S-24 Electronic Grade Sulfuric Acid Manufacturing Process**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>SIP Regulation 6</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE</b> <b>Particulate Matter and Visible Emissions (6/16/83)</b>		
6-301	Ringelmann Number 1 Limitation (9/5/79)	Y <sup>1</sup>	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gases - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	N	
9-1-309	Emission Limitations for Sulfuric Acid Plants	N	
9-1-502	Emission Monitoring Requirements	N	
9-1-601	Sampling and Analysis of Gas Streams	Y	
9-1-603	Averaging Times	Y	
9-1-604	Ground Level Monitoring	Y	
9-1-605	Emission Monitoring (2/17/82)	Y	
<b>SIP Regulation 9, Rule 1</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE</b> <b>Inorganic Gases - Sulfur Dioxide (5/3/84)</b>		
9-1-301	Limitations on Ground Level Concentrations (5/20/92)	Y	
9-1-309	Emission Limitations for New Sulfuric Acid Plants (2/16/83)	Y	
9-1-502	Emission Monitoring Requirements (3/17/82)	Y	
<b>BAAQMD Regulation 12, Rule 6</b>	<b>Acid Mist From Sulfuric Acid Plants (12/6/78)</b>		
12-6-301	Acid Mist	N	
12-6-501	Production Rate and Hours of Operation	N	
12-6-601	Testing Procedures	N	
<b>BAAQMD Condition #13507</b>			
part 1	Annual Throughput Limit (basis: cumulative increase)	Y	
part 2	Abatement Requirement (basis: SO <sub>2</sub> BACT, PM <sub>10</sub> BACT, cumulative increase)	Y	
part 3	Record Retention Requirement (basis: cumulative increase)	Y	

<sup>1</sup> This section of the SIP rule has been removed from or revised in the current BAAQMD rule. Nevertheless, the source must comply with this SIP requirement until US EPA has reviewed and approved the District's revision of the regulation.

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-J**  
**S-32 Alkylation Acid/Sulfuric Acid Tank**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Condition #13889</b>			
part 1	Abatement Requirement (basis: cumulative increase)	Y	
part 2	Annual Throughput Limit (basis: cumulative increase)	Y	
part 3	Record Retention Requirement (basis: cumulative increase)	Y	

<sup>1</sup> This section of the SIP rule has been removed from or revised in the current BAAQMD rule. Nevertheless, the source must comply with this SIP requirement until US EPA has reviewed and approved the District's revision of the regulation.

## **V. SCHEDULE OF COMPLIANCE**

The permit holder shall continue to comply with all applicable requirements of this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit.

## **VI. PERMIT CONDITIONS**

Any condition that is preceded by an asterisk is not federally enforceable.

### **A. Source Specific Permit Conditions**

#### **Condition 14980**

For S-1, Sulfuric Acid Manufacturing Process

1. In order to demonstrate compliance with BAAQMD Regulation 6-320, Sulfuric Acid Manufacturing Plants, the owner/operator shall perform an annual source test at the exhaust from the A-1, Sulfur Dioxide Abatement Unit. The owner/operator shall obtain approval for all test procedures from the District's Source Test Section at least 7 days before conducting any tests. The results of this annual source test shall be submitted to the District within 30 days of conducting the test. The source test data and the summarized results shall be kept on site for at least five years after the test date. (basis: BAAQMD Regulation 2-6-409.2, 2-6-501)

#### **Condition #7934**

For S-9 Process Air Heater

1. Direct Fired Air Heater S-9 may burn either Natural Gas or Refinery Make Gas (RMG). (basis: cumulative increase)
2. The combined usage of Natural Gas and RMG shall not exceed 61.3 million cubic feet during any consecutive 12 month period. (basis: NOx offsets, cumulative increase)
3. The owner/operator of S-9 shall maintain monthly records of natural gas and RMG usage at S-9 in a District approved log for a minimum of five years from the date of entry. These records shall be kept on site and made available to district personnel upon request. (basis: cumulative increase, BAAQMD Regulation 2-6-501)



## **VI. PERMIT CONDITIONS (continued)**

### **Condition #2051**

For S-13 Alkylation Acid Storage Tank #13

1. The S-13 Alkylation Acid Storage Tank shall be operated in a gas-tight condition and vented to the S-1 decomposition furnaces. (basis: cumulative increase)

### **Condition #708**

For S-14 Gasoline Dispensing Facility

1. Pursuant to Regulation 8-7-112.7, this facility's annual gasoline throughput shall not exceed 60,000 gallons. (Other: Regulation 8-7-112.7)

### **Condition #7606**

For S-15 Startup Air Heater

1. Startup Air Heater S-15 shall burn only natural gas. (basis: BACT)
2. Natural gas usage at S-15 shall not exceed five million (5,000,000) standard cubic feet during any consecutive 12 month period. (Basis: NOx offsets, cumulative increase)
3. NOx emissions from S-15 shall not exceed 66 ppmv at 3% O2 on a dry basis, at any firing rate, except during the first fifteen minutes of start up of the S-15 Air Preheater. (basis: NOx offsets, NOx BACT, cumulative increase)
4. CO emissions from S-15 shall not exceed 50 ppmv at 3% O2 on a dry basis, at any firing rate, except during the first fifteen minutes of start up of the S-15 Air Preheater. (basis: CO BACT, cumulative increase)
5. The owner/operator of S-15 shall maintain monthly records of natural gas usage at S-15 in a District approved log. These records shall be kept on site for a minimum of five years from the date of entry and shall be made available to District personnel upon request. (basis: cumulative increase, BAAQMD Regulation 2-6-501)

## **VI. PERMIT CONDITIONS (continued)**

### **Condition #13215**

For S-16 Alkylation Acid Tank #13

1. The throughput of alkylation acid at S-16 shall not exceed 146,000 tons in any consecutive twelve month period. (basis: cumulative increase)
2. S-16 shall be operated in a gas-tight condition and vented to the S-1 Decomposition Chambers. (basis: cumulative increase)
3. S-16 shall be abated by A-1 (SO<sub>2</sub> Abatement Facility) and A-2 (Mist Eliminator). (basis: cumulative increase)
4. The owner/operator of S-16 shall maintain monthly records of throughputs at S-16 in a District-approved log. These records shall be retained on-site for a minimum of five years from the date of entry and made available to District personnel upon request. (basis: cumulative increase, BAAQMD Regulation 2-6-501)

### **Condition #12051**

For S-17 Railcar Loading/Unloading Station (Sulfuric/Alkylation Acid)

1. The S-17 Rail Car Loading/Unloading Station may be used to transfer:
  - (a) Sulfuric Acid (no more than 99% H<sub>2</sub>SO<sub>4</sub> by weight) from storage tanks into rail cars and from rail cars into storage tanks, or
  - (b) Alkylation Acid from rail cars into storage tanks and from storage tanks into rail cars.

The owner/operator of S-17 shall obtain a Change of Permit Conditions from the District before performing any other type of transfer operation at S-17. (basis: cumulative increase)

2. During all transfers of alkylation acid from rail cars into storage tanks, the Alkylation Acid Storage Tanks (S-3, S-10, and S-13) shall be vented to the composition furnaces of the Sulfuric Acid Plant (S-1). During all transfers of alkylation acid from storage tanks into rail cars, the rail cars shall be vented to the decomposition furnaces of S-1. Alkylation acid may not be transferred when the Sulfuric Acid Plant (S-1) is shut down. (basis: cumulative increase)
3. The owner/operator of S-17 shall maintain daily records (summarized on a monthly basis) in a District approved log of the amount of alkylation acid loaded into rail cars at S-17. These records shall be kept on site for minimum of five years and shall be made available to District personnel upon request. (basis: cumulative increase, BAAQMD Regulation 2-6-501)

## **VI. PERMIT CONDITIONS (continued)**

### **Condition #12052**

For S-18 Truck Unloading Station (Alkylation Acid)

1. The S-18 Alkylation Acid Unloading Station may be used only to transfer alkylation Acid from tank trucks into storage tanks. The owner/operator of S-18 shall obtain a Change of Permit Conditions from the District before performing any other type of transfer operation at S-18. (basis: cumulative increase)
2. During all transfers of alkylation acid from tank trucks into storage tanks, the Alkylation Acid Storage Tanks (S-3, S-10, and S-13) shall be vented to the decomposition furnaces of the Sulfuric Acid Plant (S-1). Alkylation acid may not be transferred when the Sulfuric Acid Plant is shut down. (basis: cumulative increase)

### **Condition #13507**

For S-24 Electronic Grade Sulfuric Acid Manufacturing Process

1. The production rate of electronic grade sulfuric acid from S-24 shall not exceed 15,000 tons during any consecutive 12 month period. (basis: cumulative increase)
2. The EGSA Process (S-24) shall be vented to the properly maintained and properly operated S-1 Sulfuric Acid Plant (upstream of the SO<sub>2</sub> to SO<sub>3</sub> Converter) during all times that S-24 is operating. Emissions from the S-1 Sulfuric Acid Plant shall be vented to the properly maintained and properly operated A-1 Sulfur Dioxide Abatement System and A-2 Mist Eliminator. (basis: SO<sub>2</sub> BACT, PM<sub>10</sub> BACT, cumulative increase)
3. To confirm compliance with Condition #1, the owner/ operator of S-24 shall maintain monthly records of the amount of electronic grade sulfuric acid produced at S-24. These records shall be kept on site for a minimum of five years from the date of entry and shall be made available to District personnel upon request. (basis: cumulative increase, BAAQMD Regulation 2-6-501)

### **Condition #13889**

For S-32 Alkylation Acid/Sulfuric Acid Storage Tank #14

1. The S-32 Acid Tank shall be operated in gas tight condition and shall be vented to the S-1 Sulfuric Acid Plant upstream of the Decomposition Chambers during all times that S-32 contains spent alkylation acid. (basis: cumulative increase)
2. The total throughput of spent alkylation acid at S-32 shall not exceed 219,000 tons during any consecutive 12 month period. (basis: cumulative increase)
3. To confirm compliance with Condition #2, the owner/operator shall maintain

## **VI. PERMIT CONDITIONS (continued)**

monthly records of spent alkylation acid throughput at S-32 in a District approved log. These records shall be kept on site for a minimum of five years from the date of entry and shall be made available to District personnel upon request. (basis: cumulative increase, BAAQMD Regulation 2-6-501)

### **B. Facility-wide Permit Conditions**

None

## VII. PERMIT SHIELD

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the federally enforceable regulations and/or standards cited in the following table[s] are not applicable to the source or group of sources identified at the top of the table[s]. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited.

**Table VII-A**  
**S-1 Sulfuric Acid Manufacturing Process**

<b>Citation</b>	<b>Title or Description (Reason not applicable)</b>
SIP 9-1-302	General Emission Limitation (Source is subject to Section 9-1-309)
SIP 6-302	Opacity Limitation (SIP regulations do not require opacity monitoring for this source)
40 CFR 60.82	Standards of Performance for Sulfuric Acid Plants (Source constructed prior to 8/17/71 and not modified as defined by 40 CFR 60.14 since 8/17/71)
40 CFR 60.83	Standards of Performance for Sulfuric Acid Plants (Source constructed prior to 8/17/71 and not modified as defined by 40 CFR 60.14 since 8/17/71)

**Table VII-B**  
**S-24 Sulfuric Acid Manufacturing Process**

<b>Citation</b>	<b>Title or Description (Reason not applicable)</b>
SIP 9-1-302	General Emission Limitation (Source is subject to Section 9-1-309)
SIP 6-302	Opacity Limitation (SIP regulations do not require opacity monitoring for this source)
40 CFR 60.82	Standards of Performance for Sulfuric Acid Plants (Source is not Sulfuric Acid Manufacturing as defined by 60.81(a))
40 CFR 60.83	Standards of Performance for Sulfuric Acid Plants (Sources is not Sulfuric Acid Manufacturing as defined by 60.81(a))

**Table VII-C**  
**Facility-Wide**

<b>Citation</b>	<b>Title or Description (Reason not applicable)</b>
SIP 6-302	Opacity Limitation (SIP regulations do not require opacity monitoring for these sources)

## VIII. APPLICABLE EMISSION LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, either annual (A), quarterly (Q), monthly (M), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

**Table VIII-A**  
**S-1 Sulfuric Acid Manufacturing Process**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD Regulation 9-1-301	N		ground level concentrations shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours		N	
	SIP 9-1-301	Y		SO2 emissions shall not result in ground level SO2 concentrations exceeding state or federal ambient air quality standards		N	

## VIII. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

**Table VIII-A (continued)**  
**S-1 Sulfuric Acid Manufacturing Process**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	SIP 9-1-308.2	Y		gaseous emissions from any source at an H2SO4 plant shall not exceed 300 ppmv @ 12% oxygen	SIP 9-1-502	C	CEM
SO2	BAAQMD Regulation 9-1-309	N		gaseous emissions from any source at an H2SO4 plant shall not exceed 300 ppm @ 12% oxygen	BAAQMD Regulation 9-1-502	C	CEM
Acid mist	BAAQMD Regulation 12-6-301	N		gaseous emissions from an H2SO4 production unit shall not exceed 0.15 g/kg (0.3 lb/ton) of acid produced	BAAQMD Cond #14980	P/A	Source test
SO3 and H2SO4	BAAQMD 6-320	Y		0.04 grain/dscf		N	
TSP	BAAQMD 6-301	Y		Ringelmann No. 1		N	
	BAAQMD 6-310	Y		0.15 grain/dscf		N	
	BAAQMD 6-311	Y		36.5 lb/hr		N	
	SIP 6-301	Y		Ringelmann No. 1		N	

## VIII. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

**Table VIII-B**  
**S-9 Process Air Heater**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD Regulation 9-7-301.1	N		emissions shall not exceed 30 ppmv, dry @ 3% oxygen		N	
CO	BAAQMD Regulation 9-7-301.2	N		emissions shall not exceed 400 ppmv, dry @ 3% oxygen		N	
NOx, CO, VOC, PM10	BAAQMD Condition #7934 part 2	Y		fuel consumption shall not exceed 61.3 million cubic feet / 12 month period	BAAQMD Condition #7934 part 3	P/M	monthly records
H2S	BAAQMD 9-2-301	N		GLC <sup>3</sup> of 0.06 ppm min. average, or 0.03 ppm 60 min. average		N	
SO2	9-1-301	N		GLC <sup>3</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	9-1-302	Y		300 ppm (dry)		N	
	SIP 9-1-301	Y		Federal std: GLC <sup>3</sup> of 140 ppb, 24-hr average, once/yr and 30 ppb, annual average State std: GLC <sup>3</sup> of 40 ppb, 24-hr average, and 250 ppb, 1 hr average		N	

<sup>3</sup>Ground Level Concentration



## VIII. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

**Table VIII-C**  
**S-14 Gasoline Dispensing Facility**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
VOC	BAAQMD Regulation 8-7-301.2	Y		95% recovery of gasoline vapors		N	
	BAAQMD Condition #708 part 1	Y		gasoline throughput shall not exceed 60,000 gallons per year		N	

**Table VIII-D**  
**S-15 Startup Air Heater**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD Regulation 9-7-301.1	N		emissions shall not exceed 30 ppmv @ 3% O <sub>2</sub>		N	
NOx	BAAQMD Condition #7606 part 3	Y		emissions shall not exceed 66 ppmv		N	
CO	BAAQMD Regulation 9-7-301.2	N		emissions shall not exceed 400 ppmv @ 3% O <sub>2</sub>		N	
CO	BAAQMD Condition #7606 part 4	Y		emissions shall not exceed 50 ppmv		N	

## VIII. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

**Table VIII-D (continued)**  
**S-15 Startup Air Heater**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD Condition #7606 part 4	Y		Emissions shall not exceed 50 ppmv		N	
NOx, CO, VOC, PM10	BAAQMD Condition #7606 part 2	Y		fuel consumption shall not exceed 5 million cubic feet / 12 month period	BAAQMD Condition #7606 part 2	P/M	monthly records
SO2	9-1-301	N		GLC <sup>3</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	9-1-302	Y		300 ppm (dry)		N	
	SIP 9-1-301	Y		Federal std: GLC <sup>3</sup> of 140 ppb, 24-hr average, once/yr and 30 ppb, annual average State std: GLC <sup>3</sup> of 40 ppb, 24-hr average, and 250 ppb, 1 hr average		N	

**Table VIII-E**  
**S-16 Alkylation Acid Storage Tank #13**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
VOC, PM10	BAAQMD Condition #13215, part 1	Y		throughput shall not exceed 146,000 ton per 12 month period	BAAQMD Condition #13215 part 4	P/M	monthly records

## VIII. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

**Table VIII-F**  
**S-24 Electronic Grade Sulfuric Acid Manufacturing Process**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD Regulation 9-1-301	N		ground level concentrations shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	BAAQMD Regulation 9-1-501	N	Compliance with 9-1-309 ensures compliance with 9-1-301 at this facility
	SIP 9-1-301	Y		SO2 emissions shall not result in ground level SO2 concentrations exceeding state or federal ambient air quality standards		N	
SO2	SIP 9-1-308.2	Y		gaseous emissions from any source at an H2SO4 plant shall not exceed 300 ppmv @ 12% oxygen	SIP 9-1-502	C	CEM
	BAAQMD Regulation 9-1-309	N		gaseous emissions from any source at an H2SO4 plant shall not exceed 300 ppmv @ 12% oxygen	BAAQMD Regulation 9-1-502	C	CEM
	BAAQMD Condition #13507, part 1	Y		production shall not exceed 15,000 ton/12 month period	Condition #13507 part 3	P/M	monthly records

## VIII. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

**Table VIII-F (continued)**  
**S-24 Electronic Grade Sulfuric Acid Manufacturing Process**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
acid mist	BAAQMD Regulation 12-6-301	Y		gaseous emissions from an H <sub>2</sub> SO <sub>4</sub> production unit shall not exceed 0.15 g/kg (0.3 lb/ton) of acid produced		N	
TSP	BAAQMD 6-301	Y		Ringelmann No. 1		N	
	BAAQMD 6-310	Y		0.15 grain/dscf		N	
	BAAQMD 6-311	Y		2.75 lb/hr		N	
	SIP 6-301	Y		Ringelmann No. 1		N	
SO <sub>3</sub> and H <sub>2</sub> SO <sub>4</sub>	BAAQMD 6-320	Y		0.04 grain/dscf		N	

**Table VIII-G**  
**S-32 Alkylation Acid / Sulfuric Acid Storage Tank #14**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
VOC, PM <sub>10</sub>	BAAQMD Condition #13889 part 2	Y		alkylation acid throughput shall not exceed 219,000 ton per 12 month period	BAAQMD Condition #13889 part 3	P/M	monthly records

## IX. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VIII - Applicable Emission Limits & Compliance Monitoring Requirements, of this permit.

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 6-311	General Operations	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 6-320	Sulfuric Acid Manufacturing Plants	Manual of Procedures, Volume IV, ST-20, Sulfur Dioxide, Sulfur Trioxide and Sulfuric Acid Mist
BAAQMD Regulation 8-7-301.2	Gasoline Vapor Recovery	BAAQMD Manual of Procedures, Volume IV, ST-36
BAAQMD Regulation 9-1-301	Ground Level SO <sub>2</sub>	BAAQMD Manual of Procedures, Volume VI, Section 1
SIP 9-1-301	Ground Level SO <sub>2</sub>	BAAQMD Manual of Procedures, Volume VI, Section 1
SIP 9-1-308	SO <sub>2</sub> Emission Point	BAAQMD Manual of Procedures, Volume V (CEM Policy and Procedures)
BAAQMD Regulation 9-1-309	SO <sub>2</sub> Emission Point	BAAQMD Manual of Procedures, Volume V (CEM Policy and Procedures)
SIP 9-1-309	SO <sub>2</sub> Emission Point	BAAQMD Manual of Procedures, Volume V (CEM Policy and Procedures)
BAAQMD Regulation 12-6-301	Acid Mist Emission Point	40 CFR 60, Appendix a, Method 8
BAAQMD Regulation 9-7-301.1	NO <sub>x</sub> Concentration Limit	BAAQMD Manual of Procedures, Volume IV, ST-13A
BAAQMD Regulation 9-7-301.2	CO Concentration Limit	BAAQMD Manual of Procedures, Volume IV, ST-6
BAAQMD Condition #7606, part 2	NO <sub>x</sub> Concentration Limit	BAAQMD Manual of Procedures, Volume IV, ST-13A
BAAQMD Condition #7606, part 3	CO Concentration Limit	BAAQMD Manual of Procedures, Volume IV, ST-6

## **X. GLOSSARY**

### **BAAQMD**

Bay Area Air Quality Management District

### **BACT**

Best Available Control Technology

### **Basis**

The underlying authority which allows the District to impose requirements.

### **CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

### **CO**

Carbon Monoxide

### **Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

### **District**

The Bay Area Air Quality Management District

### **EPA**

The federal Environmental Protection Agency.

### **Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NPS), Part 61, (NESHAPs), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

### **HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

### **Major Facility**

A facility with potential emissions of regulated air pollutants greater than or equal to 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity as determined by the EPA administrator.

### **MOP**

The District's Manual of Procedures.

## **X. Glossary (continued)**

### **NESHAPs**

National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

### **NO<sub>x</sub>**

Oxides of nitrogen.

### **NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

### **NSR**

New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any on site contemporaneous emission reduction credits. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

### **Permit Shield**

A provision in an operating permit issued under Title V of the federal Clean Air Act as amended in 1990 that identifies federally enforceable requirements that do not apply to a source or group of sources. Once such provisions are put under a permit shield, enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited.

### **POC**

Precursor Organic Compounds

### **PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

### **PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Ambient Air Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

## **X. Glossary (continued)**

### **SIP**

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

### **SO<sub>2</sub>**

Sulfur dioxide

### **Title V**

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

### **VOC**

Volatile Organic Compounds

### **Units of Measure:**

bhp	=	brake-horsepower
Btu	=	British Thermal Unit
g	=	grams
gal	=	gallon
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
MM	=	million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year



## **XI. APPENDIX A - STATE IMPLEMENTATION PLAN**

See Attachments